

Application No. 09/681,471
Attorney Docket No. 15-IS-5715
Amendment dated November 22, 2004
Reply to Final Office Action of September 22, 2004

REMARKS AND ARGUMENTS

The present application includes claims 1-38. Claims 1-8, 11-20, 23-36, 53 and 54 were rejected in the August 16, 2004 Office Action. Claims 9-10 and 21-22 have been canceled without prejudice. The Applicant has amended independent claims 1, 15 and 25.

Claim 1 is amended to recite a status monitor for controlling the transfer of the medical data from the data source to a centralized remote data store, wherein the status monitor monitors operations occurring at the data source and triggers an archive request after the medical data is obtained by the data source, the data source transmitting the medical data to the centralized remote data store when the archive request is triggered.

Claim 15 is amended to recite a status monitor for controlling the transfer of the medical data from the centralized remote data store to a data source, wherein the status monitor automatically detects an error in the medical data at the data source by detecting at least one of data loss, data corruption, and failure of the system via a front-end connection between the data source and the status monitor, the status monitor instructing the centralized remote data store to transmit data to the data source in order to restore the medical data, wherein the data source receives the medical data and stores the medical data.

Claim 25 is amended to recite detecting an operation involving medical data executed at a medical data source, where the operation includes obtaining the medical

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data at the medical data source. Claim 25 is also amended to recite transferring the medical data from the medical data source to a centralized remote data store based on a trigger, where the trigger is produced by a status monitor after the operation occurs, where the medical data comprises at least one of a medical image, a medical report, and a medical application.

Claims 1-5, 7-8, and 11-14 were rejected under 35 U.S.C. § 103(a) as being unpatentable over Rothschild et al. (U.S. Patent No. 6,678,703.)

Claim 6 is rejected under 35 U.S.C. § 103(a) as being unpatentable over Rothschild in view of Xu et al. (U.S. Patent No. 6,675,271.)

Claims 15-20, 24-34 and 53-54 were rejected under 35 U.S.C. § 103(a) as being unpatentable over Rothschild in view of Parvulescu et al. (U.S. Patent No. 6,678,764.)

Claims 23 and 35-36 were rejected under 35 U.S.C. § 103(a) as being unpatentable over Rothschild in view of Parvulescu and further in view of Xu.

The Applicant first turns to the rejection of claims 1-5, 7-8, and 11-14 under 35 U.S.C. § 103(a) as being unpatentable over Rothschild. Rothschild discloses a medical image management system and method. The system of Rothschild includes a medical imaging system, a local image workstation and a central data management system. (column 8, lines 45-48.) The medical imaging system produces an electronic record that

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includes an electronic image associated with a region of a patient's body. (column 8, lines 48-51.) The local image workstation communicates with the medical imaging system so that the electronic record is transmitted from a medical imaging device to the local image workstation. (column 8, lines 51-58.) The central data management system communicates with the local image workstation so that the electronic record is transmitted from the local image workstation to the central data management system. (column 8, lines 55-59.) The central data management system also transmits the electronic record to remote viewing systems. (column 8, lines 59-63.)

However, Rothschild does not teach or suggest a status monitor that 1) monitors operations occurring at the data source and 2) triggers an archive request after the medical data is obtained by the data source, where the data source transmits the medical data to the centralized remote data store when the archive request is triggered by the status monitor, as recited in claim 1. Instead, Rothschild merely describes a local image workstation that "pushes" an electronic record to the central data management system once data is obtained by the local image workstation. (column 18, lines 53-56.) The local image workstation is not triggered by any other component of the system to transmit the image data. Instead, the local image workstation merely transmits the data once it is obtained.

The local image workstation of Rothschild does not wait for any trigger, request, command, or directive from a status monitor. In fact, Rothschild clearly distinguishes the

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“pushing” of data by the local image workstation from triggering a transmission of medical data by contrasting the “pushing” of data with the “pulling” of data. (column 18, lines 53-56; column 22, lines 25-43.) For example, Rothschild defines the “pushing” of data as the transmission of data as soon as the data is obtained, without waiting for any request for the data or directive from a status monitor to transmit the data. (column 22, lines 25-28.) By way of contrast, Rothschild defines the “pulling” of data as the transmission of data after a request is made for the data by a user. (see column 22, lines 28-30.) Rothschild clearly states that the central data management system “pushes” the data and does not “pull” the data. Therefore, a data source in Rothschild does not wait for any trigger to transmit medical data for storage. Thus, Rothschild does not teach or suggest elements of at least claim 1.

The Examiner asserted in the September 22, 2004 Final Office Action that “Rothschild discloses medical image center track the entire process of image delivery and review from the local image workstation (20) merely by reference to the local image workstation (20) located in their respective clinic or hospital.” (Sept. 22, 2004 Office Action, page 3.) However, the medical imaging center of Rothschild does not control or monitor the transfer of any data. As explained above, the medical imaging center of Rothschild merely tracks the delivery of medical image data and the review of medical image data. (column 29, lines 12-16.) The disclosure of Rothschild is entirely devoid of any teaching or suggestion of the medical imaging center either 1) controlling the transfer

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of medical data from a data source to a centralized remote data store or 2) triggering an archive request after medical data is obtained, both as recited in claim 1. Conversely, the medical imaging center of Rothschild merely monitors the delivery and review of medical data. Thus, the Applicant respectfully submits that it would not have been obvious to one of ordinary skill in the art "to modify Rothschild's system to include the medical image center to perform the same functionality as the claimed invention." (Sept. 22, 2004 Office Action, page 3.)

In case the Examiner is taking Official Notice, for example, of facts in the Examiner's personal knowledge rather than the prior art, the Applicant respectfully traverses each of the Examiner's assertions. Under MPEP § 2144.03, the Examiner is now obligated to cite references in support of the Examiner's assertions. Alternatively, if the Examiner's assertions are based on facts within the personal knowledge of the Examiner, the facts must be supported by an affidavit from the Examiner.

More specifically, Applicant respectfully traverses the Examiner's assertions with regard to the Examiner's assertion that it would not have been obvious to one of ordinary skill in the art "to modify Rothschild's system to include the medical image center to perform the same functionality as the claimed invention." (Sept. 22, 2004 Office Action, page 3.) The Examiner's assertion is not well known in the art as evidenced by the cited prior art. If the Examiner's assertion were well known, it would appear in the prior art. However, even after the Examiner's exhaustive search, the Examiner has been unable to

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find any reference teaching the Examiner's assertion. Consequently, it is respectfully submitted that the Examiner's assertion is not commonly known in the art and the Examiner's finding of Official Notice is respectfully traversed.

In addressing the rejection of claim 3, the Examiner submitted, "Rothschild teaches an access authenticator for authenticating access to said remote data store by said data source". (Sept. 22, 2004 Office Action, page 4.) However, Rothschild is devoid of any disclosure supporting this statement. For example, the login procedure cited by the Examiner as support for the rejection merely discloses a user logging onto a remote viewing system, and not a data source, in order to access image data. (column 22, lines 25-30.) Rothschild does not provide any teaching or suggestion for an access authenticator that authenticates access to a remote data store by a data source, as recited in claim 3.

The present rejection encompasses claims 1-5, 7-8 and 11-14. The Applicant respectfully submits that Rothschild does not teach or suggest elements of at least claims 1 and 3. Claims 2-5, 7-8 and 11-14 depend from claim 1. Therefore, the Applicant respectfully submits that claims 1-5, 7-8 and 11-14 should be allowable.

The Applicant next turns to the rejection of claim 6 under 35 U.S.C. § 103(a) over Rothschild in view of Xu. Xu describes PACS archive techniques. However, Xu is

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unavailable as a prior art reference under 35 U.S.C. § 103(a). Specifically, 35 U.S.C. § 103(c) states:

Subject matter developed by another person, which qualifies as prior art only under one or more subsections (e), (f), and (g) of section 102 of this title, shall not preclude patentability under this section where the subject matter and the claimed invention were, at the time the invention was made, owned by the same person or subject to an obligation of assignment to the same person.

35 U.S.C. § 103(c) (2003). The Xu reference 1) includes subject matter developed by another person, 2) qualifies as prior art only under 102(e), and 3) includes subject matter owned by the same entity at the time the invention of the present application was made. Specifically, the Xu reference was assigned to General Electric Company of Schenectady, New York. The present application is assigned to GE Medical Systems Information Technologies, Inc. of Milwaukee, Wisconsin, which is owned by General Electric Company.

The assignment for the present application from the inventors, Milton Silva-Craig, Thanos Karras and Greg Angst, to GE Medical Systems Information Technologies, Inc., was recorded on June 20, 2001, with a reel/frame identifier of 011920/0327. Copies of the U.S.P.T.O. Notice of Recordation of Assignment Document, the Recordation Transmittal Form, and the Assignments are attached.

The Applicant therefore respectfully submits Xu, as a reference unavailable for rejections under 35 U.S.C. § 103(a), cannot render obvious any of the present claims,

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including claim 6. Therefore, the Applicant respectfully submits that claim 6 should be allowable.

The Applicant next turns to the rejection of claims 15-20, 24-34 and 53-54 under 35 U.S.C. § 103(a) over Rothschild in view of Parvulescu. Parvulescu describes a medical image processing system. However, Parvulescu does not remedy the shortcomings of Rothschild with regards to claim 1, as described above. Specifically, while Parvulescu generally describes a system for obtaining and archiving medical images, Parvulescu is entirely devoid of any disclosure of a status monitor 1) controlling the transfer of medical data from a data source to a centralized remote data store and 2) triggering an archive request after the medical data is obtained by the data source, as recited in claim 1. Parvulescu merely describes an archiving device 100 that receives an analog signal from a image capture device 204 and stores the image in digital form on an internal hard drive. (column 4, lines 30-36.) There is no teaching or suggestion of any device or routine that either controls data transfer or triggers the archiving of medical data when medical data is obtained. Therefore, Parvulescu does not teach or suggest elements of at least claim 1.

In addition, a combination of Parvulescu and Rothschild also does not teach or suggest elements of at least claim 1. As explained above, both Parvulescu and Rothschild lack any teaching or suggestion of a status monitor that 1) controls the transfer of medical

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data from a data source to a centralized remote data store and 2) triggers an archive request after the medical data is obtained by the data source, as recited in claim 1.

In a similar manner, neither Parvulescu nor Rothschild, alone or in combination, teach or suggest elements of claim 25. Claim 25 recites detecting the obtaining of medical data at a data source and transferring the medical data from the source to a centralized remote data store based on a trigger. The trigger of claim 25 is produced by a status monitor after the data is obtained. As described above, neither Parvulescu nor Rothschild, alone or in combination, teach or suggest detecting when medical data is obtained at a medical data source and transferring the medical data from a data source to a centralized remote data store based on a trigger, where the trigger is produced by a status monitor after the data is obtained, as recited in claim 25. Therefore, the Applicant respectfully submits that neither Parvulescu nor Rothschild, alone or in combination, teach or suggest elements of at least claim 25.

With regards to claim 15, neither Parvulescu nor Rothschild teach or suggest, alone or in combination, a status monitor that 1) automatically detects an error in medical data at a data source by detecting at least one of data loss, data corruption, and a failure of a medical data storage system and 2) instructs a centralized remote data store to transmit data to the data source in order to restore the medical data that includes the error, as recited in claim 15. As described above, Rothschild merely describes a medical image management system where a medical imaging system obtains medical images and

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transmits these images to a central data management system. (column 18, lines 39-56.) Once the image data is stored at the central data management system, the images may be "pushed" to image viewing systems for users to view the images. (column 18, line 57 - column 19, line 15.) There is no teaching or suggestion in Rothschild for the automatic detection and restoration of erroneous medical data from a centralized remote data store to a data source. While Rothschild may disclose the communication of medical images from a central data management system to one or more viewing stations, this communication is not taught or suggested by Rothschild to occur as a result of a detected error in the medical image. That is, Rothschild does not teach or suggest automatically detecting an error in medical data at a data source or instructing a centralized remote data store to transmit data to the data source in order to restore the erroneous medical data, as recited in claim 15. Thus, Rothschild does not teach or suggest elements of at least claim 15.

Parvulescu does not remedy this shortcoming of Rothschild. Parvulescu merely describes a medical image processing system that provides for a user to capture a medical image and store the image data locally, on a portable media (such as a CD), or on a network server (communicated to the server via a network connection). (column 3, lines 18-39.) Parvulescu merely provides for the obtaining and storage of image data - there is no detection of errors in the image data nor is there any restoration of the erroneous image data once it is detected taught or suggested by Parvulescu. Therefore, Parvulescu

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does not teach or suggest automatically detecting an error in medical data at a data source or instructing a centralized remote data store to transmit data to the data source in order to restore the erroneous medical data, as recited in claim 15.

In addition, a combination of Rothschild and Parvulescu also does not teach or suggest elements of at least claim 15. As explained above, neither Rothschild nor Parvulescu, alone or in combination, teach or suggest automatically detecting an error in medical data at a data source or instructing a centralized remote data store to transmit data to the data source in order to restore the erroneous medical data, as recited in claim 15.

The present rejection encompasses claims 15-20, 24-34 and 53-54. The Applicant respectfully submits that claims 1, 15 and 25 recite elements not taught or suggested by Rothschild or Parvulescu, alone or in combination. Claims 16-20, 24, 26-34 and 53-54 depend from claims 1, 15 and 25. Therefore, the Applicant respectfully submits that claims 15-20, 24-34 and 53-54 should be allowable.

The Applicant next turns to the rejection of claims 23 and 35-36 under 35 U.S.C. § 103(a) over Rothschild in view of Parvulescu and further in view of Xu. As explained above, Xu is unavailable as prior art under 35 U.S.C. § 103(a). In addition, also as explained above, neither Rothschild nor Parvulescu, alone or in combination, teach or suggest elements of at least claims 15 and 25. As claims 23 and 35-36 depend from

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claims 15 and 25, the Applicant respectfully submits that claims 23 and 35-36 should be allowable.

Therefore, the Applicant respectfully submits that the claims of the present application should be allowable over the prior art.

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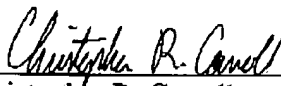
CONCLUSION

If the Examiner has any questions or the Applicant can be of any assistance, the Examiner is invited and encouraged to contact the Applicant at the number below.

The Commissioner is authorized to charge any necessary fees or credit any overpayment to the Deposit Account of GTC, Account No. 07-0845.

Respectfully submitted,

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